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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,342	04/11/2006	Terje H. Houen	AP091-06	7881
29680	7590	09/04/2008		
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EXAMINER				
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ART UNIT		PAPER NUMBER		
3654				
MAIL DATE		DELIVERY MODE		
09/04/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/595,342

Applicant(s)

HOUE, TERJE H.

Examiner

Juan J. Campos

Art Unit

3654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 11 April 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/CIS)
4) ☐ Interview Summary (PTO-413)
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____
Paper No(s)/Mail Date _____

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: "metres" should be corrected to *meters*, see page 3 and lines 16 and 28.

Appropriate correction is required.

2. The disclosure is objected to because of the following informalities: "centre" should be corrected to *center*, see pages 4 (and line 8) and page 6 (and line 8).

Appropriate correction is required.

Claim Objections

3. **Claims 1-8** are objected to because of the following informalities: the term "characterized in that" makes the claim unclear. It should be deleted from all the claims. Appropriate correction is required.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a) because they fail to show (in figures 8 and 9) how the center locks act in a manner to draw the cylindrical components (30) together. Also, the claims and specification are unclear as to the disassembly of the locks so that the respective parts of the invention can be placed inside a box as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required

in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. **Claim 5** is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims and/or specification do not disclose how the center locks act in a manner to draw the cylindrical components (30) together. Also, the claims and specification are

unclear as to the disassembly of the locks so that the respective parts of the invention can be placed inside a box.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US Patent 3,940,085) in view of Weaver et al. (US Patent 6,527,220).**

8. **Regarding claims 1 and 2,** Campbell discloses a collapsible reel that comprises separable components such as a pair of flanges (10), and hub segments (12), see figure 2. Campbell does not disclose that the cylindrical segments of the reel can be connected to the end flanges of the reel at more than one radial distance. Weaver et al. (from here on just referred to as Weaver) discloses a knockdown changeable reel system that teaches of a reel 10 that comprises a hub that can be adjusted to different radial distances (or radial distance from the central axis of the reel), see column 4 lines 16-26 and lines 46-53 and figure 3. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to connect the cylindrical segments and flanges (both of Campbell) together at more than one radial distance. The motivation

for the combination would be to follow the teaching of Weaver. Campbell further shows that the cylindrical central portion (both parts of 12) are made up of cylindrical segments (both parts of 12 shown in figure 2).

9. **Claims 3-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US Patent 3,940,085) in view of Weaver et al. (US Patent 6,527,220) in further view of Dobson (US Patent 819,866).**

10. **Regarding claim 3**, the respective reels of Campbell and Weaver are discussed above in regarding claims 1 and 2. Campbell discloses pairs of lugs (28) and elongated recesses (30) used to connect the hub segments (12), see column 5 lines 67 through column 6 line 11). Neither Campbell nor Weaver discloses the cylindrical segments interconnected by means of dovetail connections. Dobson shows a sheet-metal cylinder segment (see figure 5, considered a cylinder segment by the examiner) that uses a series of teeth (a) and notches (b) to connect the sheet-metal cylindrical segment together, see figure 5. The teeth and notches shown by Dobson are considered dovetail connections by the examiner. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to change the lugs and elongated recesses (both of Campbell) for the mechanical equivalent teeth and notches (or dovetail connections shown by Dobson) so that the cylindrical connections are dovetail connections. The motivation for the combination would be to have a different mechanical equivalent connection for the cylindrical hub segments of the Campbell reel.

11. **Regarding claim 4**, the respective reels of Campbell, Weaver and Dobson are discussed above in regarding claims 1-2 (and 3 just above). Campbell shows a pair of bolts (32) and holes (34) on the cylindrical hub segments (12) used to interconnect the hub segments see figure 2. So the bolts (32) and (34) interconnect the cylindrical hub segments by means of screw-bolt-joints.

12. **Regarding claim 6**, the respective reels of Campbell, Weaver and Dobson are discussed above in regarding claims 1-2 (and 3 just above). Campbell further shows pairs of ribs (20) and grooves (18), see figure 2, used to connect the cylindrical hub segments (12) to the flanges (10). The examiner considers the ribs of Campbell to be fastening hooks. So the ribs (or fastening hooks, considered fastening hooks by the examiner) interconnect the hub segments to the flanges.

13. **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US Patent 3,940,085) in view of Weaver et al. (US Patent 6,527,220) in further view of Dobson (US Patent 819,866) in further view of Caregnato (US Patent 3,494,641), as best understood.**

14. **Regarding claim 5**, the respective reels of Campbell, Weaver and Dobson are discussed above in regarding claims 1-2 (and 3 above). Neither Campbell, Weaver nor Dobson discloses the cylindrical segments connected by center locks. Caregnato shows a quick claw-and-flange coupling for pipes that comprises connecting a first tubular section (1) to a second tubular section (2), both consider cylindrical segments by the examiner, using a over center lock (parts 10, 7, 5, 6, 8, 9, 12, 11, 13 and 14, of

Caregnato) to connect the two segments together. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to connect such an over center lock (parts 5-12 of Caregnato) so that the cylindrical hub segments are interconnected by over center locks. The motivation for the combination would be to follow the teaching of Caregnato.

15. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US Patent 3,940,085) in view of Weaver et al. (US Patent 6,527,220) in further view of Dobson (US Patent 819,866) in further view of Orzel (US Patent 6,478,249 B1).

16. Regarding claim 7, the respective reels of Campbell, Weaver and Dobson are discussed above in regarding claims 1-2 (and 3 above). Neither Campbell, Weaver nor Dobson discloses cylindrical segments are locked to the end flanges by a latch pin. Orzel shows a reel flange with a cylinder (or just one cylindrical segment) connect to flanges (2) connected together using rods (50, or latch pins). At the time of the invention, it would have been obvious to a person of ordinary skill in this art to add such rods (or latch pins) to the cylindrical hub segments of Campbell so that the cylindrical hub segments are locked to the flanges by means of a latch pin. The motivation for the combination would be provide an additional connection means between the hub segments (of Campbell) and flanges other than the fastening hooks (discussed earlier).

17. **Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Campbell (US Patent 3,940,085) in view of Weaver et al. (US Patent 6,527,220) in further view of Orzel (US Patent 6,478,249 B1).**

18. **Regarding claim 8**, the respective reels of Campbell and Weaver are discussed above in regarding claims 1 and 2. Neither discloses the flanges composed of flange segments and triangular flange portions. Orzel shows a reel flange comprising of band (6, or flange segment) and wooden pieces (considered a triangular flange portion), see column 2 and lines 23-36. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to make the flange of Campbell into flanges segments and triangular flange portions, as taught by Orzel, so that the flanges have flange segments and triangular flange portions. The motivation for the combination would be to follow the teaching of Orzel.

19. **Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lefebvre (US Patent 1,565,655).**

20. **Regarding claims 1-2**, Lefebvre discloses a metallic bobbin that comprises separable components (parts 1 and 3, see figures 2 and 7). Also, Lefebvre shows that the metal tube (1) can be connected to the discs (3, or flanges) using tongues (2), see page 1 line 103 through page 2 line 1-2. Further, Lefebvre shows that the metal tube (or cylindrical portion) is made up of cylindrical segments (see 1, 1a and 2 in figure 1).

Lefebvre further discloses the tongues are passed through one hole (5, see figures 2 and 7) and then passed next hole (6, see figures 2 and 7), see page 1 lines 103 through page 2 lines 1-2. This action has metal tube (or cylindrical portion) at one radial distance from the axis of the reel. Inserting the tongues (2) through the holes (6) and then passing the tongues through holes (5), thus reversing the previous process of inserting the tongues, has the metal tube (or cylindrical portion) at another (second) radial distance from the axis of the reel.

21. **Claims 3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lefebvre (US Patent 1,565,655) in view of Dobson (US Patent 819,866).**

22. **Regarding claim 3,** Lefebvre discloses a metallic bobbin as discussed above in regarding claims 1-2. Lefebvre does not disclose the cylindrical segments interconnected by means of dovetail connections. Dobson shows a sheet-metal cylinder segment (see figure 5, considered a cylinder segment by the examiner) that uses a series of teeth (a) and notches (b) to connect the sheet-metal cylindrical segment together, see figure 5. The teeth and notches shown by Dobson are considered dovetail connections by the examiner. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to modify the cylindrical portion of Lefebvre so that it can be connected together using dovetail connections, as taught by Dobson. The motivation for the combination would be to follow the teaching of Dobson.

23. **Regarding claims 6**, Lefebvre and Dobson discloses their respective devices as discussed above in regarding claims 1-2 and 3 (just above). Lefebvre further shows that, once the tongues have been through holes (5, see figure 2) they are bent down to engage the next hole (6, see figure 2). By conducting the process of inserting the tongues, as discussed above, also see page 1 lines 103 through page 2 lines 1-2, the tongues (2) can be considered fastening hooks because they hook through one hole and pass into another, which fastens the metal tube (or cylindrical portion) to the discs (3, or flanges).

24. **Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lefebvre (US Patent 1,565,655) in view of Dobson (US Patent 819,866) in further view of Campbell (US Patent 3,940,085).**

25. **Regarding claim 4**, Lefebvre and Dobson discloses their respective devices as discussed above in regarding claims 1-2 and 3 (above). Neither Lefebvre nor Dobson discloses the cylindrical segments connected by screw-bolt-joints. Campbell shows a pair of bolts (32) and holes (34) on the cylindrical hub segments (12) used to interconnect the hub segments see figure 2. So the bolts (32) and (34) interconnect the cylindrical hub segments by means of screw-bolt-joints. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to modify the cylindrical portion of Lefebvre so that it can be connected together using dovetail connections and screw-bolt –joint connections, as taught by Dobson and Campbell. The motivation for the combination would be to follow the teaching of Dobson and Campbell.

26. **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lefebvre (US Patent 1,565,655) in view of Dobson (US Patent 819,866) in further view of Caregnato (US Patent 3,494,641).**

27. **Regarding claim 5**, Lefebvre and Dobson discloses their respective devices as discussed above in regarding claims 1-2 and 3 (above). Neither Lefebvre nor Dobson discloses connecting the cylinder segments using over center locks. Caregnato shows a quick claw-and-flange coupling for pipes that comprises connecting a first tubular section (1) to a second tubular section (2), both consider cylindrical segments by the examiner, using a over center lock (parts 10, 7, 5, 6, 8, 9, 12, 11, 13 and 14, of Caregnato) to connect the two segments together. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to connect such an over center lock (parts 5-12 of Caregnato) so that the metal tube (or cylindrical portion or cylindrical hub segment) are interconnected by over center locks. The motivation for the combination would be to follow the teaching of Caregnato.

28. **Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lefebvre (US Patent 1,565,655) in view of Dobson (US Patent 819,866) in further view of Orzel (US Patent 6,478,249 B1).**

29. **Regarding claim 7**, Lefebvre and Dobson discloses their respective devices as discussed above in regarding claims 1-2 and 3 (above). Neither Lefebvre nor Dobson discloses the cylinder segments connected to the flanges by a latch pin. Orzel shows a reel flange with a cylinder (or just one cylindrical segment) connect to flanges (2) connected together using rods (50, or latch pins). At the time of the invention, it would have been obvious to a person of ordinary skill in this art to add such rods (or latch pins) to the cylindrical hub segment (the metal tube) of Lefebvre so that the cylindrical hub segments are locked to the flanges by means of a latch pin. The motivation for the combination would be providing an additional connection means between the cylindrical hub segment (the metal tube) of Lefebvre and discs (3, flanges) other than the tongues (or fastening hooks, discussed earlier).

30. **Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lefebvre (US Patent 1,565,655) in view of Orzel (US Patent 6,478,249 B1).**

31. **Regarding claim 8**, Lefebvre discloses a metallic bobbin as discussed above in regarding claims 1-2. Lefebvre does not disclose the flanges are separable components. Orzel shows a reel flange comprising of band (6, or flange segment) and wooden pieces (2A, considered a triangular flange portion), see column 2 and lines 23-36. At the time of the invention, it would have been obvious to a person of ordinary skill in this art to make the discs (2, or flanges of Lefebvre) into flanges segments and triangular flange portions, as taught by Orzel, so that the discs (or flanges) have flange

segments and triangular flange portions. The motivation for the combination would be to follow the teaching of Orzel.

Conclusion

32. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent (3,958,775) to a spool as US Patent (1,565,655).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juan J. Campos whose telephone number is (571) 270-5229. The examiner can normally be reached on 9am-4pm (Monday-Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Cuomo can be reached on (571) 272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Supervisory Patent Examiner, Art Unit 3654